Contour Stripcropping (585)

Agronomy Guide Sheet

Natural Resources Conservation Service (NRCS) - Minnesota

What is Contour Stripcropping?

Contour stripcropping is a system of growing crops, forages, small grain and fallow in equal width strips arranged on the contour. Strips of row crops (usually corn and soybeans or fallow) are alternated with strips of small grain, grass or legumes.

How it helps the land

Contour stripcropping is very effective at reducing sheet and rill erosion. It can reduce soil loss by as much as 75 percent, depending on the type of crop rotation and steepness of the slope.

Applying the Practice

Estimate how many acres of each crop you want every year. Make sure your crop rotation allows for alternating row crops with hay crops. The proportion of row crops, close growing crops and meadow should be consistent with the farm enterprise crop mix. The number of fields (strips) needed to produce a nearly constant acreage of each crop for each year in the rotation is equal to one half of the years in the rotation. For example, a six year rotation of corn, corn, small grain, hay, hay, hay would work best with three strips of equal size.

Plan your fields by sketching out your strips on paper and labeling the crop in each strip year-by-year for the next five to seven years, to help you visualize your rotation and layout. Not more than half the field should be in row crop in any one year. Be sure herbicide carryover will not be a problem.

The width of each strip should be nearly equal. Strip widths may be adjusted downward to accommodate your equipment widths for even rounds, and to accommodate any correction strip needed to keep strips within prescribed row grade limits. Stripcropping is not as effective if crop strips become too wide, especially on steep slopes.

Follow the planned crop rotation to rotate perennial crop strips with annual crop strips. Substituting a crop or adjusting the rotation due to failed crops or loss of stand is acceptable, provided neither situation allows row crops in two adjacent strips. Manage herbicide applications to avoid overlap and/or drift onto adjacent rotation hay strips.

Most contour stripcropped fields will have odd areas. These areas should be tilled and planted parallel to adjacent strips. This will help runoff water move slowly off the field.

Plant field borders where there would normally be end rows running up and down hill. This reduces erosion that may occur in these areas and provides important travel lanes during haying or harvest. Do not continue rows across the ridge. Turns are difficult and short rows usually develop. Instead, leave grass turnstrips where turns become sharp. They should be wide enough to make a turn with tractor and equipment. This eliminates sharp turns and provides convenient access to strips.

Grassed waterways will need to be established and /or maintained. They are important for same disposal of excess surface water. Do not till through waterways. Lift tillage equipment and turn off spraying equipment when crossing waterways.

Maintenance

Sediment accumulations along the upslope edge of protected strips may need to be smoothed or redistributed to maintain uniform sheet flow along the strip boundary.